

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. to 81. (Cancelled).

82. (Currently Amended) A leak detector for a sterile contiguous fluid line for infusing a patient, the fluid line including a draw line connectable to at least one patient access and a return line directly connected to said at least one patient access, said detector comprising:

a portion of the fluid line adapted to be interoperable with a pump actuator such that fluid may be conveyed therethrough;

a filter, or filter connectors to permit connection to a filter, to complete a closed fluid circuit joining said draw and return lines;

said pump actuator having a first configuration in which a positive pressure is generated in said return line and a second configuration in which a negative pressure in said return line, whereby a flow through said return line and said at least one patient access may be reversed when the pump actuator switches from the first configuration to the second configuration, and

a blood leak sensor coupled to said fluid line,

wherein the return line is directly connected to said at least one patient access and forms a continuous fluid passage substantially free of gases.

83. (Previously Presented) A detector line as in claim 82, wherein said pump actuator in the second configuration is further configured to reverse a flow in both said return line and said draw line.

84. (Currently Amended) A blood flow direction control device for a sterile contiguous fluid line for infusing a patient, the fluid line including a draw line connectable to at least one patient access and a return line directly connected to said at least one patient access, said device comprising:

a portion of the fluid line adapted to be interoperable with a pump actuator such that fluid may be conveyed therethrough;

a filter, or filter connectors to permit connection to a filter, to complete a closed fluid circuit joining said draw and return lines;

at least a wetted portion of the portion of the fluid line and the pump actuator having a reverse flow operational mode in which the actuator generates a negative pressure in said fluid line, and a flow through said return line and said at least one patient access is reversed, and

wherein the return line is directly connected to said at least one patient access and forms a continuous fluid passage substantially free of gases.

85. (Previously Presented) A blood flow direction device as in claim 84, wherein reverse a flow is achieved in both said return line and said draw line during the reverse flow operational mode.